Decision Support Tool for Evaluating Life-Cycle Environmental Tradeoffs and Full Costs of Municipal Solid Waste Management

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Healthy Communities and Ecosystems

Environmental Issue:

Integrated Municipal Solid Waste Management

The United States generates ~230 million tons of municipal waste per year and spends more than $40 billion per year on its management. More management options are available, but often officials must base waste management decisions on limited and conflicting information. There is a need for credible, science-based, objective information for evaluating waste management strategies to make more informed and defensible decisions.

More options are available for MSW management.

Technical Solution:

Municipal Solid Waste Decision Support Tool

The MSW-DST is a computer-based tool that provides a standard approach to evaluating integrated waste management strategies:

- Analyzes **all waste management processes**, including collection, transfer, recycling, source reduction, composting, combustion, and landfilling
- Evaluates **life-cycle environmental tradeoffs** (multimedia, multipollutant), including potential benefits of recycling and energy recovery
- Estimates cost based on **full cost accounting** practices.

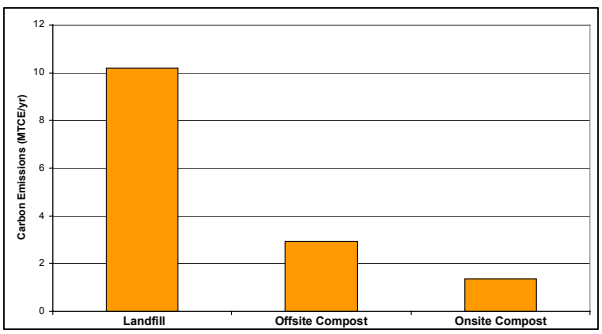
MSW-DST captures all waste management operations, multimedia environmental burdens and full costs.

Impact:

Better Solid Waste Management Decisions

The MSW-DST has enabled more than 30 communities to

- Estimate the environmental and cost implications of waste management programs and strategies
- Develop waste management plans in a more regional and integrated fashion
- Evaluate new waste management technologies
- Measure progress over time.



Analysis of greenhouse gas emissions (metric tons carbon equivalent) for alternative MSW management options.

Partnerships:

Active Participation of Stakeholders and Partners

- 32 State and local governments
- 35 Industries
- 9 Nongovernmental organizations
- 4 Federal agencies.

Web link: www.rti.org (search under MSW)